33

Dolly, J. O. et al. Modification of Clostridial Toxins for Use as Transport Proteins

## SEQUENCE LISTING

110> Dolly, J. Oliver Aoki, Kei Roger Wheeler, Larry A. Garst, Michael E.

<120> MODIFICATION OF CLOSTRIDIAL TOXINS FOR USE AS TRANSPORT PROTEINS

<130> 17044 DIV (BOT)

<140> 09/676,053

<141> 2000-09-28

<150> 08/750,101

<151> 1997-05-01

<150> PCT/GB95/0125

<151> 1995-05-31

<150> GB 9410870.1

<151> 1994-05-31

<150> GB 9410871.9

<151> 1994-05-31

<160> 19

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> primer\_bind

<222> (1)...(33)

<223> PCR primer for amplification of C. tetani neurotoxin L chain

<400> 1

gagatggtcg acatgccaat aaccataaat aat

<210> 2

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> primer\_bind

<222> (1)...(32)

<223> PCR primer for amplification of C. tetani neurotoxin L chain

17044 DIV (BOT)

C , &

Nonprovisional Patent Application

Dolly, J. O. et al. Modification of Clostridial Toxins for Use as Transport Proteins 26 ggaattctta cttattgtat ccttta <210> 7 <211> 18 <212> DNA <213> Artificial Sequence <220> <221> primer\_bind <222> (1)...(18) <223> PCR primer for site-directed mutagenesis and amplification of C. botulinum neurotoxin L chain <400> 7 18 gcacatcaac ttatacat <210> 8 <211> 18 <212> DNA <213> Artificial Sequence <220> <221> primer\_bind <222> (1) ... (18) <223> PCR primer for site-directed mutagenesis and amplification of C. botulinum neurotoxin L chain <400> 8 18 atgtataagt tgatgtgc <210> 9 <211> 18 <212> DNA <213> Artificial Sequence <220> <221> primer\_bind <222> (1)...(18) <223> PCR primer for site-directed mutagenesis and amplification of C. botulinum neurotoxin L chain <400> 9 aacttatata tgctggac 18 <210> 10 <211> 18 <212> DNA <213> Artificial Sequence <220> <221> primer\_bind <222> (1)...(18) <223> PCR primer for site-directed mutagenesis and amplification of C. botulinum neurotoxin L chain

Nonprovisional Patent Application

<400> 10

gtccagcata tataagtt

17044 DIV (BOT)

18

· c .

Dolly, J. O. et al. Modification of Clostridial Toxins for Use as Transport Proteins

```
<210> 11
<211> 13
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
<222> (1)...(13)
<223> Portion of predicted amino acid sequence of human
      SNAP-25
<400> 11
Cys Ala Asn Gln Arg Ala Thr Lys Met Leu Gly Ser Gly
                 5
<210> 12
<211> 29
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<222> (1)...(29)
                      amplification of C. tetani
<223> PCR primer for
      neurotoxin L chain
<400> 12
                                                                         29
atttcaccaa taaccataaa taattttag
<210> 13
<211> 26
<212> DNA
<213> Artificial Sequence
<220>
<221> primer_bind
<222> (1)...(26)
<223> PCR primer for amplification of C. tetani
      neurotoxin L chain
<400> 13
                                                                         26
cgggatcctt ctgtatcatt gtaaat
<210> 14
<211> 63
<212> DNA
<213> Artificial Sequence
<220>
<221> misc_feature
<222> (1)...(63)
<223> Polylinker region
<400> 14
```

```
Nonprovisional Patent Application 17044 DIV (BOT)

Dolly, J. O. et al. Modification of Clostridial Toxins for Use as Transport Proteins

atcgaggaa ggatttcaga attcggatcc tctagagtcg acatgccaat aaccataaag 60
```

63

```
atcgagggaa ggàtttcaga attcggatcc tctagagtcg acatgccaat aaccataaag
<210> 15
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
<222> (1)...(11)
<223> Wild-type region of C. tetani light chain
<400> 15
Leu Leu Met His Glu Leu Ile His Val Leu His
                 5
<210> 16
<211> 11
<212> PRT
<213> Artificial Sequence
<220>
<221> VARIANT
<222> (5)...(5)
<223> Ala 234 mutant region of C. tetani light chain
Leu Leu Met His Ala Leu Ile His Val Leu His
                 5
<210> 17
<211> 13
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
<222> (1)...(13)
<223> Polylinker region
Ile Glu Gly Arg Ile Ser Glu Phe Gly Ser Pro Pro Phe
```

```
<210> 18
<211> 39
<212> DNA
<213> Artificial Sequence
<220>
```

5

<221> misc\_feature <222> (1)...(39) <223> Polylinker region 10

```
Nonprovisional Patent Application 17044 DIV (BOT)
Dolly, J. O. et al. Modification of Clostridial Toxins for Use as Transport Proteins

400> 18
atcgagggaa ggattcaga attcggatcc cccctttt
39
<210> 19
<211> 19
<212> PRT
<213> Artificial Sequence
<220>
<221> SITE
```

Ile Glu Gly Arg Ile Ser Glu Phe Gly Ser Ser Arg Val Asp Met Pro

10

<222> (1)...(19)

<400> 19

Ile Thr Ile

<223> Polylinker region

5

6 of 6